cultivating a potato containing in [characterised by genetically engineered modification of the potato by introducing into] the genome of a [the potato] tissue of said potato a gene construct comprising a fragment of the potato gene which codes for formation of granule-bound starch synthase (GBSS gene) inserted in the anti-sense direction, wherein said fragment is selected from the group consisting of SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3 and fragments encoding the amino acid sequences of SEQ ID No. 6-17, together with a promoter selected from the group consisting of CAMV 35S, patatin I and the GBSS promoter.

4. (Amended) A fragment [Fragment] of a [the] potato gene coding for granule-bound starch synthase (GBSS), wherein said fragment is selected from the group consisting of SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3 and fragments encoding the amino acid sequences of SEQ ID No. 6-17.

7. (Amended) An antisense [Antisense] construct for inhibiting expression of the potato gene which codes for granule-bound starch synthase (GBSS gene) comprising

a) a promoter,

b) a fragment of the potato gene coding for granule-bound starch synthase inserted in the antisense direction, wherein said fragment is selected from the group consisting of SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3 and fragments encoding the amino acid sequences of SEQ ID No. 6-17.

8. (Amended) The antisense [Antisense] construct as claimed in claim 7, wherein [characterised in that] the promoter is an isolated promoter from the potato gene coding for granule-bound starch synthase (GBSS).

9. (Amended) The antisense [Antisense] construct as claimed in claim 7, wherein [characterised in that] the promoter is selected from the group consisting of the CAMV 35S promoter and the patatin I promoter.

10. (Amended) A vector [Vector] comprising a fragment of the potato gene coding for granule-bound starch synthase (GBSS), wherein said fragment is selected from the group consisting of SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3 and fragments encoding the amino acid sequences of SEQ ID No. 6-17, and said fragment is inserted in the antisense direction in relation to a promoter immediately upstream from the gene fragment.

11. (Amended) A vector [Vector] comprising the antisense construct as claimed in claim 7.

12. (Amended) A cell [Cell] of a potato plant whose genome comprises the antisense construct as claimed in claim 7.

13. (Amended) A potato [Potato] plant whose genome comprises the antisense construct as claimed in claim 7.

14. (Amended) A potato tuber [Potato tubers] whose genome comprises the anti-sense construct as claimed in claim 7.

15. (Amended) A seed [Seeds] from a potato plant, whose genome comprises the antisense construct as claimed in claim 7.

16. (Amended) A microtuber [Microtubers] of potato, whose genome comprises the antisense construct as claimed in claim 7.

17. (Amended) A vector [Vector] comprising the antisense construct as claimed in claim 8.

18. (Amended) A cell [Cell] of a potato plant whose genome comprises the antisense construct as claimed in claim 8.

19. (Amended) A potato [Potato] plant whose genome comprises the antisense construct as claimed in claim 8.

20. (Amended) A potato tuber [Potato tubers] whose genome comprises the anti-sense construct as claimed in claim 8.

22. (Amended) An antisense [Antisense] construct as claimed in claim 7, wherein [characterized in that] the promoter has the sequence stated in SEQ ID No. 4.

Please add new claims 24-49 as follows:

--24. A method of suppressing amylose formation in potato, wherein the potato is modified by genetic engineering, which method comprises cultivating a potato containing in the genome of a tissue of said potato a gene construct comprising a fragment of the potato gene which codes for formation of granule-bound starch synthase (GBSS gene)

inserted in the anti-sense direction, wherein said fragment has the nucleotide sequence of SEQ ID No. 1.

25. A method of enhancing amylopectin formation in potato, wherein the potato is modified by genetic engineering, which method comprises cultivating a potato containing in the genome of a tissue of said potato a gene construct comprising a fragment of the potato gene which codes for formation of granule-bound starch synthase (GBSS gene) inserted in the anti-sense direction, wherein said fragment has the nucleotide sequence of SEQ ID No. 1.

26. A fragment of the potato gene coding for granule-bound starch synthase (GBSS), wherein said fragment has the nucleotide sequence of SEQ ID No. 1.

27. An antisense construct for inhibiting expression of the potato gene which codes for formation of granule-bound starch synthase (GBSS gene) comprising:

(a) a promoter, and

(b) a fragment of the potato gene coding for granule-bound starch synthase inserted in the antisense direction, wherein said fragment has the nucleotide sequence of SEQ ID No. 1.

28. The antisense construct as claimed in claim 27, wherein the promoter is an isolated promoter from the potato gene coding for granule-bound starch synthase (GBSS).

29. The antisense construct as claimed in claim 27, wherein the promoter is selected from the group consisting of the CaMV 35S promoter and the patatin I promoter.

30. A vector comprising a fragment of the potato gene coding for granule-bound starch synthase (GBSS), wherein said fragment has the nucleotide sequence of SEQ ID No. 1.

31. A vector comprising the antisense construct as claimed in claim 27.

32. A cell of a potato plant whose genome comprises the antisense construct as claimed in claim 27.

33. A potato plant whose genome comprises the antisense construct as claimed in claim 27.

34. A potato tuber whose genome comprises the anti-sense construct as claimed in claim 27.

35. A seed from a potato plant, whose genome comprises the antisense construct as claimed in claim 27.

36. A microtuber of a potato, whose genome comprises the antisense construct as claimed in claim 27.

37. A method of suppressing amylose formation in potato, wherein the potato is modified by genetic engineering, which method comprises cultivating a potato containing in the genome of a tissue of said potato a gene construct comprising a fragment of the potato gene which codes for formation of granule-bound starch synthase (GBSS gene) inserted in the anti-sense direction, wherein said fragment is of sufficient length to result in the

suppression of amylose formation when introduced into the genome of a potato tissue and said potato is cultivated.

38. A method of enhancing amylopectin formation in potato, wherein the potato is modified by genetic engineering, which method comprises cultivating a potato containing in the genome of a tissue of said potato a gene construct comprising a fragment of the potato gene which codes for formation of granule-bound starch synthase (GBSS gene) inserted in the anti-sense direction, wherein said fragment is of sufficient length to result in the suppression of amylose formation when introduced into the genome of a potato tissue and said potato is cultivated.

39. A fragment of the potato gene coding for granule-bound starch synthase (GBSS),wherein said fragment is of sufficient length to result in the suppression of amylose formation when introduced into the genome of a potato tissue and said potato is cultivated.

40. An antisense construct for inhibiting expression of the potato gene which codes for formation of granule-bound starch synthase (GBSS gene) comprising:

(a) a promoter, and

(b) a fragment of the potato gene coding for granule-bound starch synthase inserted in the antisense direction, wherein said fragment is of sufficient length to result in the suppression of amylose formation when introduced into the genome of a potato tissue and said potato is cultivated.

41. The antisense construct as claimed in claim 40, wherein the promoter is an isolated promoter from the potato gene coding for granule-bound starch synthase (GBSS).

42. The antisense construct as claimed in claim 40, wherein the promoter is selected from the group consisting of the CaMV 35S promoter and the patatin I promoter.

43. A vector comprising a fragment of the potato gene coding for granule-bound starch synthase (GBSS), wherein said fragment is of sufficient length to result in the suppression of amylose formation when introduced into the genome of a potato tissue and said potato is cultivated.

44. A vector comprising the antisense construct as claimed in claim 40.

45. A cell of a potato plant whose genome comprises the antisense construct as claimed in claim 40.

46. A potato plant whose genome comprises the antisense construct as claimed in claim 40.

47. A potato tuber whose genome comprises the anti-sense construct as claimed in claim 40.

48. A seed from a potato plant, whose genome comprises the antisense construct as claimed in claim 40.

49. A microtuber of a potato, whose genome comprises the antisense construct as claimed in claim 40.--